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PERSONNEL MANAGEMENT FOR R AND D

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PERSONNEL MANAGEMENT FOR R&D

by

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I would like today to try identifying some of the problems and issues in the field of civilian personnel administration as they relate to Department of Defense (DoD) laboratories.

This is certainly not a new subject, but it is one that needs continuing attention at the highest level. In my job, I am concerned with the development of an effective in-house capability for research and technology. Consequently, the impact of personnel policies and practices upon the management of the Defense laboratories is of vital concern to me. I recognize that problems vary in intensity and character from lab to lab and from agency to agency, so there will always be some exceptions to the points I cover here.

First, what is the image of a technical career in the Federal Government as seen by industrial scientists and engineers? By and large they see a lack of challenging work and initiative, too little recognition, with stifling bureaucracy and mountains of paper work and red tape. In short, a career for people of marginal quality with little imagination and ambition but the desire for lots of security. Right or wrong, this is the general image on the outside.

Second, what are my own observations since coming to the Government? Well, I found that there are many very bright people, but there are lots of marginal ones as well. Too often longevity appears to count more than achievement, and there is stagnation resulting from an inadequate supply of new blood for key R&D management positions. Finally, R&D managers frequently do not have authority commensurate with their responsibilities. As a result of these factors, there does not appear to be an adequate system of incentives, rewards and penalties—which are absolutely fundamental to any dynamic and productive organization.

More specifically, I found that many of our in-house laboratories have not been heavily involved in the overall weapon-planning process, and too few have been involved in urgent military problems.

Third, they did not possess sufficient administrative flexibility to respond rapidly to changing needs, the changing state of technology, and the changing nature of new tasks. Thus, as already noted, they have responsibility without authority.

Such an environment is clearly not conducive to attracting the bright, ambitious talented individual. You may well ask, "If that's the situation, what is R&D management doing about it?" In 1967, we instituted a high-priority program to minimize or eliminate these problems by:

(1) assigning important military missions and weapon-planning responsibilities to laboratories;

(2) Reorganizing fragmented activities into more cohesive structures and centers with specific, challenging missions; and

(3) Eliminating administrative problems that have inhibited the effectiveness of laboratories.

We have had some success with this program. The worst difficulty, of course, has been "people" problems, and we have been less successful in finding solutions for personnel problems than for the others. This, in fact, is the main thrust of my remarks today. Part of our problem may be one of attitudes and sociology, but much of the problem is the result of "the system."

You know, we can waste a great deal of time in trying to fix the blame for our inability to find more solutions to our personnel troubles. I feel that both R&D managers and personnel directors must share the blame. Now I realize there have been cases in which we had weak R&D managers and the personnel people stepped in and did an effective job. There are also instances in which the opposite was true.

What is the problem in this business of personnel administration? Is it a matter of size? Is it lack of authority? These are components of the problem, but they are magnified by what I consider one of the major problems—many personnel people consider personnel matters as *solely* in their domain. They fail to recognize that managers of technical organizations are intimately involved in the personnel business. The R&D managers create the technical climate. They set goals and assess performance, and they must guide and motivate their people toward those goals. We must remember that the R&D manager is responsible for the ultimate success or failure of technical ventures and the laboratory itself. So it's very clear that an important role of the personnel specialist is to provide expert assistance so that these goals can be achieved.

Let us compare for a moment my own experience as an R&D manager in industry and a typical DoD laboratory director. As a manager of industrial R&D, I was given certain financial and technical objectives to achieve each year, a budget within which I had to operate, and a great deal of authority to carry out technical operations. If I did not meet the objectives, the penalty was spelled out, or at least understood—fired or shelved. The incentives for achieving or exceeding them were also well understood.

I was part of a larger organization and therefore had to interact with forces and situations outside my own domain. We had a check-and-balance system like the Government's, but I believe we had more emphasis on the "balances" and less on the "checks." I had ready access to the policy level, which is more possible in a smaller organization, and I could always have my day in court. This doesn't mean that I didn't lose a few appeals, but the opportunity to appeal was there.

Probably one of my greatest management flexibilities was that I could make the hire and fire decisions and had the authority to deploy my technical resources rapidly to meet new situations. In implementing this system, naturally I had to work closely with our personnel people, but our personnel systems were relatively simple. They were the experts on salary structures, recruiting techniques and similar specialties, and we worked together using the profit and loss statement as our principal guide. That is what we were judged on. That's how one advanced, not just by living within the system. We had to satisfy our customers to survive. Our personnel office was also motivated toward these objectives, because everyone gained from being associated with a profitable organization.

In looking at the Government organization, I realize that we have no profit and loss statement, nor can we have one. But, more important, there is also a fundamental difference that can be formulated as follows: What is the optimum tradeoff point between maximizing organizational performance, in the way that corporations tend to do, and maximizing the protection of employee rights, in the way that the Government civil service merit system tends to do?

An industrial group can, and is often willing to, hire and fire people, based upon "hard-nosed" criteria for improving the organization's effectiveness in achieving a specific goal. Without question, this may produce an occasional unfair or premature action from the ideal personnel administrator's perspective. We must remember, however, that the objective is *always* quality improvement. On the other hand, my observations are that the Government tends to develop and apply mechanisms that place great emphasis on tenure and preserving every employee's rights, even though these mechanisms actually reduce the effectiveness of a given organizational unit.

Obviously, there are pros and cons regarding both of these extreme orientations. The problem is to create a healthy middle ground. An employee whose rights are protected but whose organization is ineffective may not be any happier than an employee who feels a colleague is being treated somewhat unfairly but who knows he is participating in a highly successful, viable activity.

There are also many other differences that cause problems. In the DoD, scientists and engineers represent only a fraction of the total force, about 2 to 3 percent. This is not a complaint, simply a fact. But in most cases they are deeply embedded in an organizational matrix that has much broader responsibilities than just R&D. The overall personnel system is often operated around the majority. It appears to lack the required flexibility to permit the establishment or maintenance of a creative environment.

Isn't it ironic that in this system we can find situations in which a laboratory manager who has authority to make million-dollar technical decisions hasn't the authority, working in conjunction with his own

personnel office, to make a thousand-dollar decision on promoting a GS-13 to GS-14 without prior approval by higher authority; or a technical manager is not permitted to move a GS-12 physicist from one branch to another without getting permission beforehand, and cannot make a \$4.10 decision to send a technical man to a scientific meeting without going up the line for approval? Of course, the last example is not a personnel restriction, but perhaps it illustrates the degree of detail that is bogging us down and contributes to the image I described earlier.

When I discussed the matter of personnel flexibility with Chairman John Macy [of the Civil Service Commission] sometime back, he said that we have a great deal of flexibility in the Federal personnel system but it just isn't being used by the agencies. I then talked to the agencies, and they put the blame squarely on the civil service system. Finally we told Chairman Macy, "You say there is flexibility in the Federal personnel system to provide a better operation. But our personnel people really don't agree. How about sending your representatives into our laboratories, have them talk to the managers and personnel directors, and find out firsthand whether we are using all of the flexibility available within the personnel system?" He did just that—sent his regional directors into 47 DoD laboratories.

We have recently received their report, and we have joined forces with the DoD manpower and personnel people to come up with solutions. From 80 to 90 percent of the problems they identified are resolvable within the framework of existing legislation and civil service rules and regulations. Are they not being solved because of ignorance concerning those rules and regulations, or failure to recognize the need for their solution, or satisfaction with the status quo? I don't know. You should be better judges of that than I.

The report cites, in particular, that procedures, controls and administrative devices that are effective for operational and logistical organizations are being misapplied to R&D activities. This is being done in spite of special provisions available within the Federal personnel system that are tailored to the unique needs of creative people and work. To emphasize this, let me quote one of the principal findings in this report:

The key to laboratory effectiveness is flexibility. It is possible to tailor a system of controls within the Federal Personnel System which is compatible with the need for a creative environment within technical organizations. This can be different from those applied to other organizations. The Civil Service Commission has delegated to Federal Agencies the authority to apply a number of special provisions to satisfy the unique needs of research and development. Such authorities should be redelegated to the extent feasible to the lowest level consistent with good management. Better use of the post-audit technique to evaluate and appraise performance would be appropriate.

There is no reason why we cannot achieve a tailored management system for technical organizations, which is comparable to that of progressive industrial technical organizations and compatible with the Federal Personnel System. The tools are available. All that is necessary is the will to do it.¹

We of the technical community have identified a long-time urgent need, and the Civil Service Commission says the tools are available. What's the problem, then? I believe that you, as personnel administrators, will have to decide whether you are part of the problem or part of the solution.

Nick Organovic, in his talk on "Improving the Breed" before this same group in 1965, attempted to establish some goals for you. He said,

What is the most serious complaint about personnel people? The one that I believe is most damaging is that personnel officials are not centers of action, or innovation, and that they do not generate positive solutions to management problems.

There are too many personnel people who are more concerned about security, the safe course, the easy and familiar way, than they are about getting their teeth into tough problems. . . . We must have a greater degree of boldness; a readiness to look at problems in new ways; a willingness to take the chance of making some mistakes ourselves and to tell management about their errors when we think management is mistaken.

I agree with him. Unfortunately, what he said still applies 3 years later. I wonder if we can find evidence of major improvements! I believe that the past, familiar ways of managing technical people and organization within Government has not produced the desired results. Some new, imaginative approaches are needed. I believe that you must ask yourselves, "Are we fostering the delegation of all the flexibility that is available within the system?" Suppose that a driver in the Grand Prix race is told to win it big and is given all the necessary financial resources, but he has to use 80-octane gasoline, can only have one mechanic and no alternate driver, and can't kiss a pretty girl if he wins! We cannot have a situation such as that in our R&D labs.

In these days of specialized management skills, almost all executive actions are cooperative ventures. As specialists and advisers to R&D management, you can help establish desired objectives, plan meaningful personnel and manpower programs, and provide the standards for after-the-fact appraisal. This would be immeasurable assistance to the line manager.

¹Report on Problems in the Management of Department of Defense In-House Laboratories (Washington, D. C.: Civil Service Commission, 27 December 1967).

He must not only manage people but must relate people and skills in an integrated way with programmed funds, facilities and equipment to accomplish his mission. He must have a degree of authority over people comparable to his control over other resources, and he must be guided and helped in his personnel activities by his personnel office, just as he must rely on his procurement, accounting and other staff offices.

We must find ways to delegate more authority over personnel actions to the R&D manager. We must have enough confidence to give him authority over his resources to attain organizational objectives. If he succeeds, let's reward him. If he fails, let him pay the price. But, above all, let's reward him for achievement.

I am vitally interested in this important problem of personnel management. You can help. I would like each of you to give me only 10 minutes of your time in which you ask yourself these questions: How can we improve the personnel management of Federal laboratories? How can we help the laboratory director achieve his objectives more effectively? What action can we take to improve the cooperative efforts of personnel and R&D people? What controls are now in effect that don't make sense, and what should be done to eliminate them? How can we be more effective in getting rid of marginal people? Then, give me a call or drop me a note with your thoughts and suggestions. I will really appreciate it.

I believe that a model personnel system for R&D organizations can be developed within the Government framework. It will take much effort, but if we have the will we can succeed. In fact, we cannot afford to fail, for the stakes are too high. And, as you take on these problems, maybe we should remember what George Bernard Shaw said, "Progress is only made by unreasonable men."